

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions of claims in the application.

Listing of Claims

1. (currently amended) Human  $\beta$ TrCP protein (h-  $\beta$ TrCP) for the targeting of proteins towards proteasome degradation pathways, said protein having SEQ ID NO:2 and being capable of interacting with proteins degradable by proteasome, which possess the phosphorylation unit comprising the amino acids Asp-Ser-Glu-Xaa-Xaa-Ser (SEQ ID NO:9), in which Xaa is any natural amino acid and the serine residues are phosphorylated and said protein comprising the following units having the following positions in the sequence SEQ ID NO:2:

|                   |                            |
|-------------------|----------------------------|
| -F-box:           | amino acids 147 - 191,     |
| -first WD unit:   | amino acids 259 - 292,     |
| -second WD unit:  | amino acids 304 - 332,     |
| -third WD unit:   | amino acids 343 - 373,     |
| -fourth WD unit:  | amino acids 387 - 415,     |
| -fifth WD unit:   | amino acids 427 - 455,     |
| -sixth WD unit:   | amino acids 467 - 492, and |
| -seventh WD unit: | amino acids 516 - 544.     |

2. (canceled)

3. (previously presented) Protein according to Claim 1, characterized in that it is capable of interacting with the Vpu protein of HIV-1 virus or with the cell proteins  $\text{I}\kappa\beta$  or  $\beta$ -Catenin.

4. (previously presented) Protein according to claim 1, characterized in that it is capable of interacting with the Skp1p protein.

5 - 6. (canceled)

7. (currently amended) A nucleic acid sequence coding for the human protein h- $\beta$ TrCP according to Claim 1, characterized in that it consists of:

- a) the DNA sequence SEQ ID NO:1;
- ~~b) a DNA sequence which hybridizes under strict conditions with the above sequence;~~
- ~~e) b)~~ A DNA sequence which, due to the degeneracy of the genetic code, results from the sequences a) and b) above and codes for the human protein h- $\beta$ TrCP having SEQ ID NO:2; or
- ~~d) c)~~ a mRNA and cDNA sequence corresponding to a), b), or e) b).

8 - 30. (canceled)

31. (original) Expression vector, characterized in that it comprises a nucleic acid sequence according to claim 7 and the means necessary for its expression.

32. (original) Microorganisms or host cells transformed by an expression vector according to claim 31.

33 - 36. (canceled)

37. (previously presented) A method of identifying anti-HIV-1 antiviral agents, the method comprising the step of screening anti-HIV antiviral agent candidates using the h- $\beta$ TrCP protein of Claim 1 to determine the capability of the anti-HIV antiviral agent candidates to inhibit the interaction between h- $\beta$ TrCP protein and Vpu protein, wherein an anti-HIV antiviral agent candidate that inhibits binding between h- $\beta$ TrCP protein and Vpu protein is identified as an anti-HIV-1 antiviral agent.

38 - 50. (canceled)